

DOCUMENT RESUME

ED 095 240

UD 014 512

AUTHOR Morrison, Lonnie
TITLE A Comparison of the "Educationally Disadvantaged" Students Receiving Tutorial and Counseling Assistance with Students Accepted Through Regular Admission and Do Not Receive Any Tutorial Or Counseling Assistance.
INSTITUTION State Univ. of New York, Oswego. Coll. at Oswego. Coll. of Arts and Sciences.
PUB DATE Aug 74
NOTE 33p.
EDRS PRICE MF-\$0.75 HC-\$1.85 PLUS POSTAGE
DESCRIPTORS College Admission; College Freshmen; *College Programs; College Students; *Compensatory Education Programs; Counseling Services; *Educationally Disadvantaged; Grade Point Average; Graduation; Program Evaluation; Special Programs; *Tutorial Programs
IDENTIFIERS New York

ABSTRACT

This study was undertaken to evaluate the State University College at Oswego's special program to determine the degree to which the program has enhanced the academic success of special program students. Twenty male and 20 female students were randomly selected from each of three classifications of the 1970 freshmen class: regularly admitted students, educational opportunity program students, and regional service program students. The college data included such information as semester grade report averages, cumulative grade point averages, credits attempted, credits completed, number of times on probation, and number of times disqualified and reinstated. The data suggest that special program students earn lower cumulative grade point averages, more failing grades, and credits at a slower rate than regularly admitted students. However, the results indicate that the Office of Special Programs, with its supportive services, has been fairly successful in enhancing the academic achievement of persisting special program students. In addition, the study supports the argument that the chances for success for educationally disadvantaged students are greatly increased when they are placed in a program designed to meet their academic, financial, cultural, and social needs. (Author/JM)

ED 095240

A COMPARISON OF THE "EDUCATIONALLY DISADVANTAGED" STUDENTS RECEIVING TUTORIAL AND COUNSELING ASSISTANCE WITH STUDENTS ACCEPTED THROUGH REGULAR ADMISSION AND DO NOT RECEIVE ANY TUTORIAL OR COUNSELING ASSISTANCE

BEST COPY AVAILABLE

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

LONNIE MORRISON
AUGUST 1974

UD 014512

TABLE OF CONTENTS

CHAPTER 1

Introduction	1
Problem	3
Hypotheses	4
Assumptions	5
Definition of Terms	6

CHAPTER 2

Review of Literature	8
--------------------------------	---

CHAPTER 3

Methods and Procedures	12
----------------------------------	----

CHAPTER 4

Findings	14
Conclusions	26
Recommendations for Additional Research	28

References	29
----------------------	----

LIST OF TABLES

1. Multivariate Analysis of Original Sample Groups High School Grade Point Averages Adjusted for Zero Covariates	14
2. High School Grade Point Averages of Original Sample Groups	16
3. Multivariate Analysis of Persisting Students High School Grade Point Averages Adjusted for Zero Covariates	16
4. High School Grade Point Averages of Persisting Students After Six Semesters	17
5. Attrition Rate of Original Sample Groups	18
6. Multivariate Analysis of Persisting and Nonpersisting Students With One Criteria (H.S. Average) Adjusted for Zero Covariates	19
7. Comparison of High School Averages Between Persisting and Nonpersisting Students	20
8. Multivariate Analysis of Persisting Students Cumulative Grade Point Averages Adjusted for Zero Covariates.	21
9. Cumulative Grade Point Averages of Persisting Students After Six Semesters	22
10. Multivariate Analysis of Persisting Students Cumulative Grade Point Averages Adjusted for One Covariate (H.S. Average)	23
11. Comparison of Credits Completed by Persisting Students	24
12. Multivariate Analysis of Persisting Students Credits Adjusted for One Covariate (H.S. Average).	24
13. Comparison of Grades Earned by Persisting Students	25

CHAPTER 1

Introduction

Recent studies and authors (Harlem Youth Opportunities Unlimited, Inc., 1964; Wolf, 1969, p. 32; Morgan, 1970, p. 14; Keller, 1970, p. 67) showed that in our technological society education has been and will continue to be the primary means of achieving economic and social success. However, Jencks in his study on inequality in America (1972, p. 8) felt that that economic success depends on luck and on-the-job competencies that are only moderately related to family background, schooling, or scores on standardized tests.

While a number of institutions had recognized the need to concern themselves with the educational problems of the academically and economically disadvantaged, Reavis (1970, p. 40), Klingelhofer and Longere (1971, p. 5), and O'Neil (1974, p. 4), cite the assassination of Dr. Martin Luther King as the key factor that contributed to the expansion of educational opportunities for disadvantaged students. As a result of this event, more institutions developed special programs in an attempt to respond to the educational needs of educationally disadvantaged students. In addition to making the opportunity for higher education accessible to academically and economically disadvantaged students, most of these programs provided a combination of services designed to enhance their academic success. Furthermore, a study by the College Entrance Examination Board (1973) found that the college aspirations for low-income youth had been growing prior to the

assassination of Dr. King. According to this study, the growth was due to the decline for high school graduates, increased emphasis on the baccalaureate degree, increased accessibility to post-secondary education, and increased post-secondary financial aid programs based on financial need.

Henderson (1970, p. 22), Winkelman (1970, p. 37), Klingelhofer and Longacre (1971, p. 5) have stated that special programs have been called unfair and discriminatory and that professors were predicting a catastrophic decline in academic standards. As a result, Spaights and Hudson (1970, p. 11) and Klingelhofer and Hollander (1973, p. 2) have stated that special programs now bear the burden of justifying their existence since many of them were conceived without any prior experience or knowledge on which to base their programs or services. Furthermore, McDill (1969, p. 71) and Klingelhofer and Hollander (1973, p. 2) state that existing evaluative research on compensatory education have failed to meet minimum standards for program design, data collection, and data analysis. They also state that much of what has been written falls into the category of testimonials rather than empirical documentation.

This study was undertaken to evaluate the State University College at Oswego's special program to determine the degree to which the program has enhanced the academic success of special program students.

Problem

This study will attempt to answer the question: What has been the success (defined by potential graduation) of Freshmen students admitted in 1970 to the Office of Special Programs and receiving tutorial and counseling assistance as compared to regularly admitted Freshmen students who did not receive any tutorial or counseling assistance as a regular part of their academic program?

Hypotheses

- A. There is a statistically significant difference between the high school grade point average of special program students and regularly admitted students.
- B. There is no statistically significant difference between the high school grade point average of Educational Opportunity Program students and Regional Service Program students.
- C. There is a statistically significant difference between those students who persist and those who do not.
- D. There is no statistically significant difference in the cumulative grade point average by the end of the sixth semester between special program students and regularly admitted students.
- E. There is no statistically significant difference between the potential graduation success rate of special program students and regularly admitted students.

Assumptions

- A. The high school grade point average is a valid indicator for ascertaining the initial difference in academic achievement between special program students and regularly admitted students.
- B. There is no significant difference in the academic potential between special program students and regularly admitted students.
- C. If there were no tutorial or counseling supportive services, none of the special program students would have persisted.
- D. The randomly selected sample groups of forty are of adequate size to reflect the overall academic achievement of the student population.
- E. The college cumulative grade point average is the best single criterion upon which to compare the academic achievement of the sample groups at the end of six semesters.
- F. Persistence after six semesters is a valid indicator that students will graduate within two or three additional semesters.

Definition of Terms

Educationally Disadvantaged Students:	Students who are below average in academic achievement as measured by standardized examinations and are not eligible for acceptance to college through the regular admission process.
Regularly Admitted Students:	Students who are eligible for acceptance to college through the regular admission process.
Educational Opportunity Program (EOP):	Educational program designed to meet the educational needs of educationally disadvantaged students by providing tutorial, counseling, and financial assistance.
Educational Opportunity Program Students:	Students admitted to college through the Educational Opportunity Program.
Regional Service Program (RSP):	Educational program designed to meet the educational needs of local educationally disadvantaged students by providing tutorial and counseling assistance.
Regional Service Program Students:	Students admitted to college through the Regional Service Program.
Persisting Students:	Students who are still in college at the end of the sixth semester.

Nonpersisting Students:

Students who are no longer in college by the end of the sixth semester.

CHAPTER 2

Review of Literature

A review of the literature indicates that there are many divergent views on compensatory education programs, and as a result different types of compensatory education programs have been developed. Gordon and Wilkerson (1966) conducted a survey in 1964 of 2,093 institutions and identified 224 compensatory education programs from the responses received from 610 institutions. In spite of the fact that there are many types of compensatory education programs, Gordon and Wilkerson's 1964 survey showed that most of these programs are designed around the same assumptions and invariably include the same services. The results of their survey indicated that approximately two-thirds of those colleges and universities reporting compensatory education programs provided some type of counseling and guidance services, credit and noncredit remedial courses, instruction in study skills and test taking, tutorial assistance, special curriculums, and lengthened time for completing degree requirements. One-third of the colleges and universities had modified admission criteria, special recruiting procedures, special preparatory courses, and special financial aid.

The Experiment In Higher Education (EHIE) at Southern Illinois University (SIU) developed the concept of the Teacher-Counselor to maintain contact with students and provide them with tutorial and counseling assistance. In addition, the Teacher-Counselors' role and flexibility supposedly increased their effectiveness as "change agents"

to make the educational system responsive to the needs of educationally disadvantaged students. Other special programs use various combinations of tutoring and counseling techniques, although they tend to separate the tutorial and counseling functions.

EHE's first study (no date indicated on study) was designed to determine if students from nonpoverty backgrounds performed significantly better than students from poverty backgrounds; and if students from nonpoverty backgrounds exhibited more motivation to remain in school than students from poverty backgrounds. The data for testing the two hypotheses was gathered from the academic and attrition performance measures of three sample groups. The sample groups consisted of students enrolled in the EHE Program at the East St. Louis campus (experimental group); students enrolled at the Edwardsville campus at SIU (SIU average group); and students enrolled at Edwardsville campus and selected as a matched control group (SIU control group).

The results of the study indicated no statistically significant difference in first year academic achievement between EHE students (experimental group) and the average SIU students (SIU average group), although the researchers did find that the experimental group performed significantly better than the matched control group (SIU control group). They also found that the experimental group had a statistically significant lower attrition rate than the SIU average group and the SIU control group. Based on the results of the study, they concluded that the probability of success for students from poverty backgrounds increases when they are placed in education programs specifically tailored for their needs. They also concluded that students from poverty backgrounds interest in education, as exhibited by their lower attrition rate, tends

to increase when their culture is recognized and utilized as a teaching device.

A second EHE study conducted in 1968 also found that the performance of EHE students was comparable to that of other SIU students. Furthermore, the study found positive changes in the areas of major field of study, desired income levels, academic self-assessment, attitudes towards the desirability of education and attitudes towards EHE. All of these positive changes were interpreted to be a consequence of their participation in the EHE program.

The Basic Education and Enrichment Program at Elizabeth City State College (Elizabeth City State College Annual Report, 1969) provides tutoring, counseling, and testing services. Professors teach tutorial and counseling techniques to superior students (peer-tutor counselor concept) who, under the guidance of professional counselors, determine the total needs of their tutees and design programs to fulfill these needs. Although no formal evaluation exists at this time, the information that is available indicates that the program has been successful.

The Detroit Project I at Michigan State University, which initially enrolled sixty-six Black students, provides tutoring, counseling, and financial aid services. Although more than half of the students had combined SAT scores under 789, fifty-one students continued in the fall. Sabine (1968) concluded that the Detroit Project I provided additional data showing that special education programs are effective for increasing the retention rate of students.

Etters conducted a study in 1967 of Parsons College tutorial program, a program designed to offer tutorial services to all students but particularly to low-achieving students. He found that tutoring

increased the grade point average of low achievers when used in conjunction with reduced course loads.

Meister and Tauber (1965) found in their study of the College Discovery Program at Bronx Community College and at Queensborough Community College, that the attrition rate for students in the programs was low. They concluded that the high retention rate was due to tutoring and motivation.

Hyman et al (1974) found in their evaluation of the East Harlem Experimental and Bi-lingual Institute that the Institute compared favorably with SEEK students in City University's special program on the three measures of grades earned, credits earned, and retention rate. They also found that the Institute compared favorably with students in the Open Admissions Program of City University on grades earned and attrition rate for those students earning 4 - 7 credits per semester. Their positive findings are attributed to the supportive service components of the Institute, although it was stated that it appeared that the tutoring program achieved a low degree of success.

The results of these studies have provided some supportive and substantial data in support of special programs. They have indicated that educationally disadvantaged students can do college work and perform as well as regularly admitted students when they are provided with supportive services designed to enhance their academic success.

CHAPTER 3

Methods and Procedures

Forty students (20 males and 20 females) were randomly selected from each of three classifications of the 1970 Freshmen class (total sample: 120 students). The three student classifications selected for the study were regularly admitted students, educational opportunity program students (EOP students), and regional service program students (RSP students). It was believed that a population less than forty would not produce statistically significant data and would be subject to methodological criticisms, and that a population larger than forty would not radically alter the results obtained from the sample groups.

High school data was originally going to be collected and evaluated on the basis of high school averages, RSE/SAT scores, and English, mathematics, science, and language scores. After reviewing a number of high school records it became quite apparent that it would be impossible to collect much of the data. For one reason, grading systems vary from school to school (some use numerical grades and others letter grades); second, course titles vary; and third, much of the data was missing from the high school transcripts. Therefore, the high school average was selected as the sole criterion for ascertaining initial similarities and differences between the three sample groups.

Collecting the college data involved reviewing each student's grade report and recording such information as semester grade report averages,

cumulative grade point averages, credits attempted, credits completed, number of times on probation, and number of times disqualified and reinstated.

In analyzing the data, the range was used to measure the distribution on scores; the mean, median, and mode to measure central tendency of scores; the standard deviation to measure variability; the t test and f test to measure statistical significance of mean differences; the Tukey test to compare the means with one another; and multivariate analysis of variance to measure relationships between variables. A significance level of .05 was established as the basis for accepting or rejecting the hypotheses.

CHAPTER 4

Findings

The f test of the high school grade point averages showed a statistically significant difference between the sample groups and between males and females. The value of f in the f test analysis of the high school grade point average between the sample groups was 97.343 which is statistically significant at the p.001 level. The value of f in the analysis of the high school grade point average between males and females of the sample groups was 22.634 which is statistically significant at the p.001 level (see table 1). Therefore, the hypothesis stating that there is a statistically significant difference between the high school grade point averages of special programs students and

TABLE 1

Multivariate Analysis of Original Sample Groups
High School Grade Point Averages
Adjusted for Zero Covariates

Source	DF	MS	F	P less than
Group	2	1355.716	97.343	.001*
Sex	1	315.232	22.634	.001*

Group: Represents multivariate analysis of regularly admitted student group, EOP student group, and RSP student group with 2 degrees of freedom.

*Statistically significant

regularly admitted students is accepted. Using the Tukey test, which is designed to compare the means of the sample groups, a statistically significant difference was found at the p.05 level between the EOP and RSP group (Kirk, 1968, p. 88-90). Therefore, the null hypothesis stating that there is no statistically significant difference between EOP and RSP students is rejected. The rejection of the null hypothesis is significant in light of the fact that EOP students and RSP students both met the same criteria for being declared educationally disadvantaged.

An analysis of the high school grade point averages indicates that females enter Oswego with slightly higher high school grade point averages than males. The difference is statistically significant within the RSP group and regularly admitted group. The value of t in a t test of the high school grade point average between males and females within the EOP group was 1.83 which is not statistically significant. The value of t within the RSP group was 2.50 which is statistically significant at the p.05 level, and within the regularly admitted group t was 4.28 which is statistically significant at the p.01 level (see table 2).

An analysis of the high school grade point average of students still in college (persisting students) by the end of the sixth semester yields the same statistical results in terms of a statistically significant difference between groups and between males and females. The value of f in the analysis of the high school grade point average between the groups was 34.958 which is statistically significant at the p.001 level. The value of f in the analysis of the high school grade point average

TABLE 2
High School Grade Point Averages
of Original Sample Groups

	Range	Mean	Median	Mode	SD	t
EOP Students						
Males	68 - 82	73.69	72.50	71	4.13	
Females	71 - 81	75.90	75.59	73	2.87	
Both	68 - 82	74.73	74.19	73	3.73	1.83*
RSP Students						
Males	71 - 83	77.04	78.00	74, 79	3.97	
Females	75 - 94	80.25	80.00	78	4.16	
Both	71 - 94	78.65	78.50	78	4.37	2.50**
Reg. Adm. Students						
Males	77 - 92	84.30	84.00	82, 85	3.87	
Females	84 - 93	88.75	89.00	89	2.57	
Both	77 - 93	86.53	87.00	89	3.99	4.28***

*p > .05 within group between males and females

**p < .05 within group between males and females

***p < .01 within group between males and females

between males and females was 14.098 which is statistically significant at the p.001 level (see table 3).

TABLE 3
Multivariate Analysis of Persisting Students
High School Grade Point Averages
Adjusted for Zero Covariates

Source	DF	MS	F	P less than
Group	2	512.026	34.958	.001*
Sex	1	206.490	14.098	.001*

*Statistically significant

In addition, persisting females maintained a higher mean high school grade point average than persisting males that is statistically significant within the RSP group and regularly admitted group. The value of t for the EOP group was 1.22 which is not statistically significant. The value of t for the RSP group was 2.17 which is statistically significant at the $p.05$ level and 3.74 for the regularly admitted group which is statistically significant at the $p.01$ level (see table 4).

TABLE 4
High School Grade Point Averages
of Persisting Students
after Six Semesters

	Range	Mean	SD	t
EOP Students				
Males	70 - 81	74.83	4.36	
Females	74 - 81	77.06	2.30	
Both	70 - 81	76.03	3.22	1.22*
RSP Students				
Males	72 - 83	77.91	4.06	
Females	77 - 94	82.00	4.94	
Both	72 - 94	79.94	4.74	2.17**
Reg. Adm. Students				
Males	77 - 92	84.37	4.07	
Females	84 - 93	88.25	2.22	
Both	77 - 93	86.53	3.99	3.74***

* $p > .05$ within group between males and females

** $p < .05$ within group between males and females

*** $p < .01$ within group between males and females

An analysis of the attrition rate of the three sample groups indicated that approximately 60% of the randomly selected EOP students had either withdrawn or were disqualified compared to 47.5% and 22.5% for the RSP and regularly admitted student groups respectively (see table 5).

TABLE 5
Attrition Rate of Original Sample Groups

	Original Population	Attrition Population	Attrition Rate
EOP	40	24	60.0
RSP	40	19	47.5
Reg. Adm. Students	40	9	22.5

A multivariate analysis of variance (MANOVA) of persistence vs. nonpersistence indicated a statistically significant difference in the high school grade point averages between groups and between males and females. The value of f in the analysis of the high school grade point average between the groups was 97.343 which is statistically significant at the $p.001$ level. The value of f in the analysis of the high school grade point average between males and females was 22.634 which is statistically significant at the $p.001$ level. The multivariate analysis also indicated that there was no statistically significant difference within groups between those students who persisted and those who did not and within groups between sexes. The value of f in the analysis within groups between those who persisted and those who did not was 2.963, which is not statistically significant. The value of f in the analysis

within groups between sexes was 1.451, which is not statistically significant (see table 6).

TABLE 6
Multivariate Analysis of Persisting and Nonpersisting
Students with One Criteria (H.S. Average)
Adjusted for Zero Covariates

Source	DF	MS	F	P less than
Group	2	1355.716	97.343	.001*
Sex	1	315.232	22.634	.001*
Persistence	1	41.276	2.963	.088
Group Interacting with Sex	2	20.220	1.451	.238
Group Interacting with Persistence	2	23.105	1.659	.195
Sex Interacting with Persistence	1	1.227	.088	.767
Group Interacting with Persistence and Sex	2	5.362	.385	.681

*Statistically significant

A comparison of the high school grade point average between persisting and nonpersisting students also indicated that there was no statistically significant difference between those students who persisted and those who did not. The value of t for EOP males was .77, and for EOP females 1.43; for RSP males 1.05, and for RSP females 1.97; for regularly admitted males 1.46 and for regularly admitted females .97 (see table 7). In other words, the multivariate analysis of persistence vs. non-persistence and the comparison of high school averages between persisting and nonpersisting students tends to suggest that persistence or

nonpersistence is not significantly related to high school grade point averages. The analyses suggest that there are other factors which cause students, especially special program students, to leave school.

TABLE 7
Comparison of High School Averages Between
Persisting and Nonpersisting Students

	Persisting Mean	Nonpersisting Mean	t test
EOP Students			
Males	74.83	73.17	.77*
SD	4.36	4.32	
Females	77.00	75.00	1.43*
SD	2.38	3.20	
RSP Students			
Males	77.91	76.00	1.05*
SD	4.06	4.06	
Females	82.00	78.50	1.97*
SD	4.94	2.68	
Reg. Adm. Students			
Males	84.37	83.00	1.46*
SD	4.07	-0-	
Females	88.25	89.50	.97*
SD	2.22	3.16	

*p > .05

Therefore, the hypothesis stating that there is a statistically significant difference between those students who persist and those who do not is rejected. The null hypothesis stating that there is no statistically significant difference between the potential graduation success rate of special program students and regularly admitted students is also rejected.

An analysis of persisting students' cumulative grade point averages at the end of six semesters indicated that a statistically significant difference continued to exist between the sample groups. The value of f was 17.469 which is statistically significant at the $p.001$ level. Therefore, the null hypothesis stating that there is no statistically significant difference between the cumulative grade point averages by the end of the sixth semester between special program students and regularly admitted students is rejected. The analysis of persisting students' cumulative grade point averages also indicated that there was no statistically significant difference between males and females. The value of f was 1.783 which is not statistically significant (see table 8).

TABLE 8

Multivariate Analysis of Persisting Students
Cumulative Grade Point Averages
Adjusted for Zero Covariates

Source	DF	MS	F	P less than
Group	2	3.122	17.469	.001*
Sex	1	.318	1.783	.186
Group Interacting with Sex	2	.152	.085	.431

*Statistically significant

An analysis of the cumulative grade point averages of persisting students after six semesters indicated that there was no statistically significant difference between males and females within each group.

The value of t for the EOP group was .20, for the RSP group t was 1.77, and for the regularly admitted group t was .27 (see table 9).

TABLE 9
Cumulative Grade Point Averages
of Persisting Students
After Six Semesters

	Range	Median	SD	t test
EOP Students				
Males	1.97 - 2.33	2.10	.11	
Females	1.77 - 2.73	2.12	.27	
Both	1.77 - 2.73	2.12	.22	.20*
RSP Students				
Males	1.60 - 3.29	2.23	.44	
Females	1.73 - 3.36	2.57	.44	
Both	1.60 - 3.36	2.39	.47	1.77*
Reg. Adm. Students				
Males	2.17 - 3.79	2.87	.52	
Females	2.56 - 3.36	2.91	.30	
Both	2.17 - 3.79	2.89	.43	.27*

*p > .05 within groups between males and females

Using the multivariate analysis adjusted for one covariate (H.S. Average), no statistically significant difference was found to exist between the cumulative grade point averages of persisting students nor between males and females. The value of f for the analysis between persisting students was 1.818 and between males and females .024 (see table 10).

Although there was no statistically significant difference between the cumulative grade point averages of the three sample groups, regularly admitted students still seem to do better academically than special

TABLE 10

Multivariate Analysis of Persisting Students
Cumulative Grade Point Averages Adjusted
for One Covariate (H.S. Average)

Source	DF	MS	F	P less than
Group	2	.277	1.818	.171*
Sex	1	.003	.024	.875*
Group Interacting with Sex	2	.130	.853	.431*

*Not statistically significant

program students. This would suggest that there are still other factors which tend to perpetuate the academic differences between the groups which cannot be attributed solely to their high school averages.

Thus far the data has indicated that there is a statistically significant difference between the high school grade point averages and cumulative grade point averages of the persisting students. An analysis of credits completed by the three sample groups has indicated that EOP and RSP students are earning credits, but at a slower rate than regularly admitted students. EOP and RSP students earn approximately 13.48 and 13.70 credits per semester respectively compared to 15.70 for regularly admitted students (see table 11).

A multivariate analysis of credits adjusted for one covariate (H.S. Average) has indicated that there is no statistically significant difference between credits earned by the three sample groups although there was a statistically significant difference between males and females. The value of f for the analysis of credits adjusted for one covariate between the three sample groups was 1.215. The value of f for the

TABLE 11
Comparison of Credits Completed
by Persisting Students

	Range	Mean	Average Per Semester	SD
EOP Students				
Males	57 - 91	77.00	12.83	12.56
Females	54 - 107	87.57	14.60	13.82
Both	54 - 107	80.63	13.48	14.02
RSP Students				
Males	32 - 93	77.32	12.89	17.81
Females	47 - 104	87.55	14.59	15.62
Both	32 - 104	82.19	13.70	15.60
Reg. Adm. Students				
Males	70 - 102	88.26	14.71	9.53
Females	76 - 112	93.88	15.65	9.32
Both	70 - 112	90.44	15.07	9.54

analysis of credits adjusted for one covariate between males and females is 4.181, which is statistically significant at the p.05 level (see table 12).

TABLE 12
Multivariate Analysis of Persisting Students Credits
Adjusted for One Covariate (H.S. Average)

Source	DF	MS	F	P less than
Group	2	206.655	1.215	.304
Sex	1	711.126	4.181	.045*
Group Interacting with Sex	2	46.616	.274	.761

*Statistically significant

The data has also indicated that EOP and RSP students earn lower grades and more failing grades than regularly admitted students. A chi-square analysis of grades earned by persisting students indicates that the difference in grades earned is statistically significant at the .00 level (see table 13).

TABLE 13

Comparison of Grades Earned by
Persisting Students

	A	B	C	D	E	W	S/P and F
EOP Students	7.8	19.6	28.1	15.5	20.2	3.2	6.8
RSP Students	9.2	26.6	35.5	10.5	5.7	.8	12.0
Reg. Adm. Students	23.4	33.5	21.9	3.2	2.8	.6	13.9

Chi-Square (12) = 516.2900

Probability less than 0.00

The comparison of grades earned by persisting students indicates that approximately 20% of the grades earned by EOP students are E's. This tends to supply some information which suggests why EOP students earn credits at a slower rate than regularly admitted students.

Conclusions

This study has attempted to compare the academic success of special program students to that of regularly admitted students admitted in the Fall of 1970.

The Tukey test of the high school grade point averages of the randomly selected groups has clearly indicated that there is a statistically significant difference between special program students and regularly admitted students. This statistically significant difference continues to exist between persisting special program students and regularly admitted students after six semesters, although a multivariate analysis of persistence vs. nonpersistence has indicated that there was no statistically significant difference within groups between those students who persisted and those who did not. The data suggests that persistence or nonpersistence is not significantly related to high school grade point average since the multivariate analysis of persistence vs. nonpersistence has indicated that there was no statistically significant difference between those students who persisted and those who did not. This tends to suggest that there are other significant factors which cause students, especially special program students, to leave school that are not directly related to their high school grade point averages.

The multivariate analysis of persisting students' cumulative grade point averages adjusted for zero covariates has indicated that there is still a statistically significant difference between special program students and regularly admitted students. Although once the cumulative grade point average was adjusted for high school average, no statistically significant difference was found to exist between special program

students and regularly admitted students. This analysis is extremely significant because it indicates statistically that once the initial academic difference between special program students and regularly admitted students are accounted for, persisting special program students tend to do as well as regularly admitted students.

Finally, the data has indicated that special program students earn lower cumulative grade point averages, more failing grades, and credits at a slower rate than regularly admitted students. However, the results of the study have indicated that the Office of Special Programs, with its supportive services, has been fairly successful in enhancing the academic achievement of persisting special program students. In addition, the study supports the argument that the chances for success for educationally disadvantaged students are greatly increased when they are placed in a program designed to meet their academic, financial, cultural, and social needs.

Recommendations for Additional Research

This study has not focused on some factors that may have affected the attrition rate and academic success of special program students. It is therefore suggested that further research be conducted in the following areas to provide additional data to the Office of Special Programs and to the college in order to improve already existing supportive services.

1. To what extent do program students who withdraw from college do so as a result of racial prejudice, a lack of social or cultural activities, or as a result of family and financial problems?
2. To what extent has the retention rate of special program students improved as a result of improved supportive services?
3. To what extent is there a positive relationship between those students who persist and the utilization of tutor-counselors?
4. To what extent does the summer session program improve the retention rate and academic success of special program students?
5. To what extent have faculty members utilized or developed innovative methods in teaching educationally disadvantaged students?

References

- Archibald, R. D., & Chemers, M. M. The relationship of teacher's cognitive style to minority student satisfaction. The Journal of Afro-American Issues, II (February, 1974), 21-33.
- The Basic Education and Enrichment Program at Elizabeth City State University at North Carolina. ED 037-171.
- College Entrance Examination Board. Toward equal opportunity for higher education. New York: College Entrance Examination Board, 1973.
- Etters, E. M. Tutorial assistance in college core courses. The Journal of Educational Research, Vol. 60 (1967), 406-407.
- Experiment in Higher Education Refunding Proposal. Southern Illinois University, 1968. (typewritten)
- Gordon, E. W., & Wilkerson, D. A. Compensatory education for the disadvantaged. New York: College Entrance Examination Board, 1966.
- Harlem Youth Opportunities Unlimited, Inc. Youth in the ghetto: A study of the consequences of powerlessness and a blueprint for change. New York: Harlem Youth Opportunities Unlimited, Inc., 1964.
- Haskins, M. L. Full Opportunity Report. State University College at Oswego, 1970. (typewritten)
- Henderson, D. Some necessary changes in university practices for education of the disadvantaged. Education, Vol. 69 (1973), 21-25.
- Hyman, H. H., et al. The East Harlem Experimental and Bi-lingual Institute: An evaluation of goal achievement. New York: Hunter College Urban Research Center, Department of Urban Affairs, 1974.
- Institute on Innovative Teaching and Counseling I. Proceedings of First Annual Meeting. Binghamton, New York, 1970.
- Institute on Innovative Teaching and Counseling II. Proceedings of Second Annual Meeting. Syracuse, New York, 1971.
- Jencks, C., et al. Inequality: A reassessment of the effect of family and schooling in America. New York: Basic Books, Inc., 1972.
- Johnson, R. Black scholars on higher education in the 70's. Columbus, Ohio: ECCA Publication, Inc., 1974.
- Keller, S. The American lower class family: A survey of selected facts and their implications. New York: New York State Division for Youth, 1970.
- Kirk, R. E. Experimental design: Procedures for the behavioral sciences. Belmont, California: Brooks and Cole, 1968.

- Klingelhofer, E. L., & Hollander, L. Educational characteristics and needs of new students: A review of the literature. California: Center For Research and Development in Higher Education, 1973.
- Klingelhofer, E. L., & Lonacre, B. J. Educational opportunity programs. Research Reporter, 1971.
- Knoell, D. M. Toward educational opportunity for all. New York: State University of New York, 1966.
- Mangano, J. F., & Towne, R. C. Improving migrant students' academic achievement through self-concept enhancement. New York: New York State Center for Migrant Studies at Geneseo College, 1969.
- McDill, E., et al. Strategies for success in compensatory education: An appraisal of evaluative research. Baltimore: John Hopkins Press, 1969.
- Meister, M., & Tauber, A. A Bronx Community College experiments in expanding educational opportunity for the disadvantaged. The Phi Delta Kappan, Vol. 46 (1965), 340-342.
- Morgan, G. D. The ghetto college student: A descriptive essay on college youth from the inner city. Iowa City, Iowa: The American College Testing Program, 1970.
- National Education Association. Education and racism: An action manual. Washington, D. C.: National Education Association, 1973.
- O'Neil, R. Should colleges and universities give preferential admission to minority group applicants? Chicago: WGBH Educational Foundation, 1974.
- Reavis, J. The role of educational opportunity programs in the university and the local campus. The Institute on Innovative Teaching and Counseling I. New York: State University of New York, 1970.
- Sabine, G. A. Michigan State's search for more Negro students. College board review, Vol. 69 (1968), 11-14.
- Somerville, W. The future of educational opportunity programs in colleges and universities. Education, Vol. 69 (1973), 14-19.
- Sowell, T. Black education myths and tragedies. New York: David McKay Company Inc., 1972.
- Spaights, E., & Hudson, A. C. Educational opportunity: A review of the literature. Education, Vol. 69 (1973), 4-13.
- Winkelman, D. W. The opportunity program: Key to collegiate viability. Education, Vol. 69 (1973), 37-44.
- Wolfe, R. P. The ideal of the university. Boston: Beacon Press, 1969.